

CURRICULUM VITAE

Dr. Jasobanta Das
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ACADEMIC QUALIFICATIONS

- 2006 **Doctoral Degree in Chemistry**
Title of thesis: "Preparation, characterisation, adsorption behaviour and catalytic evaluation of some hydrotalcite type anionic clays".
Utkal University, Vanivihar, Bhubaneswar, Odisha, India
- 1994 **Associateship Diploma in Chemistry (M. Sc. Equiv.)**
Institution of Chemists (India)
- 1988 **+3 Science**
Utkal University, Vanivihar, Bhubaneswar, Odisha, India

RESEARCH INTEREST

Since joining at CSIR-IMMT (so called R.R.L) in 1991, I have been associated with quite a good number of externally funded projects from DST, MoEF, Ministry of Earth Sciences, BRNS besides collaborative projects. The projects mostly relate to red mud, alum sludge, manganese nodule and its leached residues utilisation, pollution monitoring due to hexavalent Cr, catalysis for VOC decomposition and adsorptive removal of toxic anionic species such as F⁻, Selenite, phosphate, Cr (VI) using hydrotalcite type synthetic anionic clays and photocatalytic degradation of some organic dyes using graphene based nanocomposites. Presently, I have been working in Central Characterization Department and leading some technical services projects related to chemical characterization of ores, minerals, slags and other related materials and also looking after the AAS.

PUBLICATIONS

No. of publications in journals: 23
No. of publications in proceedings: 07
Patents: 05

SELECTED PUBLICATIONS IN PEER REVIEWED JOURNALS

1. K. M. Parida and **J. Das**, Studies on ferric oxide hydroxides, Part II. Structural properties of goethite samples (α -FeOOH) prepared by homogeneous precipitation method from Fe (NO₃)₃ solution in presence of sulphate ions. *J. Coll. & Interface Sci.* 178 (1996) 586-593.
2. J. Pradhan, S. N. Das, **J. Das**, S.B. Rao and R. S. Thakur, Characterization of Indian red muds and recovery of their metal values. *Light Metals* 1996, p-87.
3. J. Pradhan, **J. Das**, S. N. Das and R. S. Thakur, Adsorption of phosphate from aqueous solution using activated red mud. *J. Coll. Interf. Sci.* 204 (1998) 169-172.
4. K. M. Parida and **J. Das**, Mg/Al hydrotalcite: preparation, characterisation and ketonisation of acetic acid. *J. Mol. Catal. A: Chemical*, 151 (2000) 185-192.
5. **J. Das**, D. Das, G.P. Das and K. M. Parida, Studies on Mg/Fe Hydrotalcite-like-Compound (HTlc) 1. Removal of inorganic selenite (SeO₃²⁻) from aqueous medium. *J. Colloid. Interf. Sci.*, 251(2002) 75-86.
6. D. P. Das, **J. Das** and K. M. Parida, Physico-chemical characterization and adsorption behaviour of calcined Zn/Al Hydrotalcite-like-compound (HTlc) towards removal of fluoride from aqueous solution. *J. Colloid. Interface Sci.*, 216 (2003) 213-220.
7. **J. Das**, D. Das, G. P. Das, D.P. Das and K. M. Parida, Studies on Mg/Fe Hydrotalcites-like compounds (HTlc): Removal of Cr (VI) from aqueous solution. *International Journal of Environmental Studies*, 61 (5) (2004) 605-616.
8. K. M. Parida, S. S. Dash, S. Mallik and **J. Das**, Effect of heat-treatment on the physicochemical properties and catalytic activity of H₂O₂ decomposition of Manganese nodules leached residue. *J. Colloid. Interf. Sci.* 290 (2005) 431-436.
9. **J. Das**, B. S. Patra, N. Baliarsingh and K. M. Parida, Adsorption of phosphate from aqueous solution in layered double hydroxides. *Applied Clay Science* 32 (3-4) (2006) 252-260.
10. K. M. Parida, S. Parija, **J. Das** and P.S. Mukherjee, Preparation, characterisation of molybdophosphoric and tungstophosphoric acid intercalated Zn-Al hydrotalcite-like-compounds and their catalytic evaluation towards the oxidative bromination of phenol. *Catalysis Communications* 7(2006) 913-919.
11. **J. Das**, B. S. Patra, N. Baliarsingh and K. M. Parida, Calcined Mg-Fe-CO₃ LDH as an adsorbent for the removal of selenite J. *Colloids & Interf. Sci.*, 316 (2) (2007) 216-223.
12. **J. Das** and K. M. Parida, Heteropoly acid intercalated Zn/Al HTlc as efficient catalyst for esterification of acetic acid with n-butanol. *J. Mol. Catal. A: Chemical* 264 (2007) 248-254.
13. D. P. Das, R. K. Barik, **J. Das**, P. Mohapatra and K. M. Parida, Visible light induced photo-hydroxylation of phenol to catechol over RGO-Ag₃VO₄ nanocomposites without the use of H₂O₂. *RSC Adv.*, 2, 7377-7379 (2012).
14. D. P. Das, A. Samal, **J. Das**, A. Dash and H. Gupta, One-Pot Fabrication of RGO-Ag₃VO₄ Nanocomposites by *in situ* Photoreduction using different sacrificial agents: High selectivity towards catechol synthesis and photodegradation ability. *Photochemistry and Photobiology* 90 (1), 57-65 (2014).
15. A. Samal, D. P. Das, K. K. Nanda, B. K. Mishra, **J. Das** and A. Dash, Reduced graphene oxide-Ag₃PO₄ heterostructure: A direct Z-scheme photocatalyst for augmented photoreactivity and stability. *Chem. Asian Journal* 11 584-595 (2016) (IF: 4.587)

INTERNATIONAL PATENT

1. Reduced graphene oxide-silver phosphate (RGO-AgP) and a process for the preparation thereof for the photodegradation of organic dyes" D.P. Das, A. Samal, J. Das, A. Dash; United States Patent Application Publication, PCT/IN2013/000575, 24.09.2013, WO 2014207754A1, CA2916855A1, US20160144349A1 Pub Date: May 26, 2016 EP 3013742 B1 (granted, 2018).